

Saint Paul ATARI Computer Enthusiasts



An independent computer user group

O C T O B E R 1 9 8 7

SPACE Meeting

Friday, Oct 9 at 7:30pm

MAST Meeting

Friday, Oct 16 at 7:30pm

At the Falcon Heights Community Center
2077 Larpenteur Avenue West

MAST PROGRAMMERS Meeting

Monday, Oct 19 at 7:30pm

At First Minnesota Bank Building - second floor
Lexington and Larpenteur, in back of building

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President

774-6226

Jim Schulz

Vice President

537-5442

MAST Co-Chair

MAST Disk Librarian

Bob Floyd

MAST Co-Chair

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Minnesota
Atari SIG

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Bytes from the Pres, by Bruce Haug

October is here, elections are coming in November. I have other commitments for the December meeting. Who will be your President and have the key to open the meeting hall??? Maybe there will be no SPACE, just a MAST meeting in December??? People better start thinking of what they want to do.

There are some bylaw changes printed in this newsletter that will be voted on October 9 at the SPACE meeting. Also, there will be one more printed in the November newsletter. That one has to do with the treasurer keeping MAST and SPACE funds separate. This has always been done, but there is no bylaw stating so!!!

I understand the DOM is another BEST of SPACE. Some of you newer members should check with the DOM librarian on some of the EXTRA disks we had years ago. Bob Floyd's Blazing Paddles is still in use by a lot of Atari owners. We have it!!!

SEE YOU OCTOBER 9th

Proposed Amendments (Changes) to the Club Bylaws

As a result of last month's votes in favor of "Option 2" at both SPACE and MAST meetings, the Executive Board proposes these changes to the club bylaws. Please refer to the September newsletter for details on Option 2 (basically, it is changes to give SPACE and MAST equal representation in club matters). There

will be copies of the current bylaws at the SPACE meeting, since this is currently the only meeting where a bylaws vote can take place. Interested MAST members will have to attend the October SPACE meeting, this time, if they wish to vote. Assuming the passage of these amendments, then paper ballot votes will be taken at both meetings (and combined into one result) in future votes. Copies of the new bylaws, if passed, will be available at the October MAST meeting and the November SPACE meeting.

ARTICLE I NAME

Section 1. The name of this club shall be the St. Paul Atari Computer Enthusiasts/Minnesota Atari ST (SPACE/MAST), an independent computer user group.

Section 2. SPACE is the 8-bit computer group. MAST is the 16-bit computer group.

ARTICLE IV OFFICERS

Section 1. The officers of the club shall be a president of SPACE, a president of MAST, a vice-president of SPACE, a vice-president of MAST, and a treasurer for the combined SPACE/MAST. These officers shall perform the duties prescribed by these bylaws and by the parliamentary authority adopted by the club.

Section 2. Every year at the September meetings, nominating committees of two members shall be elected by both SPACE and MAST. It shall be the duty of these committees to nominate candidates for the offices to be elected at the November meetings. The nominating committees shall make a progress report at the October meetings. Before the election at the November meetings, additional nominations from the floor shall be permitted.

Section 3. Prior to the November meetings, the nominating committees shall pool all nominations for treasurer to make a combined list of candidates for both SPACE and MAST.

Section 4. The officers shall be elected by paper ballot to serve for one year, or until their successors are elected, and their term of office shall begin at the close of the annual meeting at which they are elected.

Section 5. The presidents and vice-presidents of SPACE and MAST shall actively seek volunteers to fill the following positions for their respective groups: Secretary, Disk of the Month (DOM) Librarian, Paper & Educational Software Librarian, Bulletin Board Coordinator, and a common Newsletter Editor for both groups. These volunteers shall be subject to approval of the club membership. For services rendered, these volunteers shall not be required to pay club dues during their term of office.

ARTICLE V MEETINGS

Section 1. The regular meetings of SPACE and MAST shall be held on the second and third Fridays of each month, respectively, unless otherwise ordered by the club or the executive board.

Section 2. The November meetings of SPACE and MAST shall be known as the Annual Meetings and shall be for the purpose of electing officers, receiving reports of officers and committees, and for any other business that may arise.

Section 6. Club DOM's will be sold at club meetings by the designated DOM Librarian, and the price of this software will be set by the SPACE/MAST executive board.

Sections 7 & 8. [Deleted]

ARTICLE VI THE EXECUTIVE BOARD

Section 1. The President of SPACE, President of MAST, Vice-President of SPACE, Vice President of MAST and Treasurer of SPACE/MAST shall constitute the executive board.

SPACE DOM Stuff, by Frank Haug

Ok, this month I thought I'd take time to explain the IDOC program from last month. I'm sorry, I couldn't explain it last month, due to time. IDOC is a set of Graphic program's written by John Novotny, one of our SPACE members. (Sorry it took me so long to get this out, John. I really appreciate your submissions. Please keep them coming in!). The IDOC disk contains:

- * GWIZ - allows parts of picture to be combined together and saved/printed.
- * BIG CHUMP - allows design of large text for printing purposes.
- * Papa DOC - prints graphics and text combined.
- * IDOC-U - a utility to link it all together.
- * Last GASP - graphics support program - extra features, picture conversion (gr.0 to gr.8) and more.

That's just the surface. The programs are completely documented and loaded with features. For \$4, how can you go wrong?

Now this month's DOM....

1. STUDDOKE - Poker, with 4 of your ATARI-gambling friends.
2. OTHELLO - A classic board game, well done.
3. CLOWNS - The familiar bounce the clowns and pop the balloons game.
4. TRIKTRAX - An original maze/puzzle type game with great graphics and a wide variety of playing modes.
5. OILGAME - An oldie but goodie. Search for oil in this 1-4 player simulation.
6. BOWLING - A very well done rendition of bowling - good graphics.

We hope to have our problems with the disk's fixed from last month. See you at the meeting.

SPACE Meeting Minutes for September, 1987
Recorded by Bob Floyd, substituting for Joe Danko

The meeting was called to order by President Bruce Haug. Vice President Jim Schulz reported the following 8-bit news:

- ATARI bought Federated Group, a chain of electronics stores.
- ATARI has shipped the 212 modem. Thus far, an 850 or equivalent interface is required for use.
- There is no news on the new disk drive or 80 column board.
- ICD is having trouble with their SpartaDOS X cartridge.
- Gauntlet will be converted to the 8-bit computers.

Bruce reported problems in copying the ANALOG 8-bit extra disks and the ANALOG DOM's. It may be due to a bad SIO cable. Treasurer Bob Siede reported a July balance of \$214 and an August balance of \$732 (\$192 SPACE & \$540 MAST). Bob Floyd showed his recently acquired reconditioned ATARI Touch Tablet. Paper & Educational Software Librarian Jim Scheib said that there are a few overdue items out there and requested speedy return. Two new items added to the library are "Invasion Orion" and "News Station". DOM Librarian Frank Haug had a "Best of....." series of disks from past SPACE DOM's. Among them were Ski King, Crazy 8's, Gravity, Myripede, and John Novotny's new text/graphics utility. Larry Vanden Plas said that the most recent batch of ribbons for re-inking were in very poor condition when he got them.

SPACE BBS Coordinator Frank Haug said the BBS is full. He needs to "clean up" files to make more room. Frank requested no more uploads until further notice (to be posted on the BBS). He said there are 120-130 users of the BBS. The change to Oasis software has been delayed because of problems with two disk drives.

In Old Business, John Mitchell (647-1538) and Larry Vanden Plas (636-2415) volunteered to be on the nomination committee to help get candidates for the November elections. Also in Old Business, a member asked whether equipment would be donated to St. Paul Children's Hospital. Bruce Haug said he would check into it.

In New Business, the relationship of SPACE and MAST was discussed at length. A good summary of the options presented to the club were printed in the September newsletter. The vote that was held was a non-binding one, meant only to indicate to the executive board how best to modify the bylaws. A motion was made and passed in favor of Option 2. Simply put, this option keeps the relationship of SPACE and MAST fairly similar, but gives MAST equal representation in club matters. The vote on the actual bylaw changes needed for implementing Option 2 will be held at the October SPACE meeting.

Fonts in a Snap on the ATARI 8 Bit Computers, by Larry Serflaten

This is the type of article I like to see appear in the newsletter, so I decided to write it. One member finds a nifty routine and shares his good fortune with everyone. I can hear an argument developing now, "it's been done before, don't reinvent the wheel". For those of you who may not yet have heard of a good method to program fonts quickly and efficiently, or whether you need one or several fonts....

USING DIFFERENT FONTS CAN GIVE A PROGRAM A UNIQUE APPEARANCE. The purpose of this article will be to publish a routine you can use in your programming.

APPLICATIONS of different character sets (fonts) may range from accurate bar charts to player animation to little doors, windows, and stairs for architectural programs. Several fonts placed in the computer's memory may be flashed to the screen many times per second to produce animation that moves smoothly.

The routine I have here will eliminate the time normally wasted while slowly poking data into place. It minimizes the memory usage by using characters (1 byte) as data, replacing numbers (3 digits). The BASIC programmers who are beginning to read the books will be looking to somehow load a new font at computer speed. It isn't magic - it's all done with strings.

Unfortunately, neat fonts are not already in the computer. You have to put them there with some sort of font editor. My font editor creates a file that matches byte for byte the character set I have drawn. That's about as good a picture of one character set that I can give you, aside from stating that it will be 1024 or 512 bytes long depending upon the preferred graphics mode (0 or 1,2). The character set holds the information that helps the computer make an A look like an A. The computer holds 8 bytes of data to display each character. The bytes are stored in sequential order one character's 8 bytes after the first until all characters are stored. The computer retains one font in memory. It's useful, but you can't change it. The programmer must put his font somewhere in user memory, out of reach from the program's memory needs. The most advised method I've seen here is to put the font at a location a multiple of 1024 or 512 (depending;) at the high end of user memory. Using the high end of user memory will keep your program statements from overwriting your font data, but you have also got to keep any changing graphics from creeping down from above. The books I read suggest we use locations 741,742 (MEMTOP) and 14,15 (APPMHI) - more on this later.

HOW DO YOU PROGRAM NEW FONTS TO BE IN PLACE AND ON THE SCREEN IN UNDER 5 SECONDS FROM THE TIME THE PROGRAM BEGAN? Indirection makes it possible - data arrays (strings) are the key. Because arrays are already easy to work with, the people at ATARI included string manipulating routines that run at a respectable rate in their 8-bit BASIC. One example of this is the concatenation of strings. Each byte of even a large string may be set to a certain value by making the first and the last byte equal to that value and then declaring the second byte on up is equal to the first byte on up:

```
10 DIM A$(5000):A$="0":A$(5000)="0":A$(2)=A$
```

Unless you exceed a strings limit (32,767 bytes) LINE 10 will execute in under one second. To print the whole string to the screen may take considerably longer (I had about a 4.8 seconds print to screen margin in my earlier example of 5 seconds). If we want the computer to load the string at its fastest rate we use the assignment statement like the middle two statements above [A\$="--new data--"]. This means that we have to store the font data in the program as characters in a string. We can't fill large strings on one logical line, so we have to break it up into segments. Using the forced read mode with a minimal amount of effort, you have the computer convert the character set file into a subroutine that assigns each character its corresponding byte from the file. If not, I have one that writes new program lines and lists them to the disk where they may be included in any program by using the ENTER command. The end result looks like the example below and uses the least amount of program memory.

```
30000 A$(1)=" (character set info as a string) "  
30001 A$(101)=" (more character set info as a string) "  
30002 A$(201)=" (more character set info as a string) "  
... until done.
```

You should now understand how to store the data in the program. That leaves only to make the computer look at the data as a character set and to protect that set from being overwritten. The latter being the easiest, I will give you that now. We'll use two pointers (vectors) to tell the computer it has less memory than it started with. One location [PEEK 742] holds the MSB of the highest location available for BASIC, the other [PEEK 15] holds the lowest allowable memory used when setting up new graphics displays. Location 742 should point to the start of the font data while location 15 points to the end. YOU MUST ALLOW ENOUGH SPACE ABOVE YOUR FONT DATA FOR YOUR LARGEST GRAPHIC MODE! To ensure you get proper values, try the largest graphic mode you plan to use before you peek into location 742. That's all there is to protecting memory from BASIC hazards.

To get the computer to recognize the data as its character set, the address of the first byte of data must be a nice round number (it's concept of round is a little different than yours or mine). The address must be a multiple of 1024 or 512 (depending;). If we peek location 742, we get back a number representing the highest available memory location. Subtracting 4 (1024) or 2 (512) from this number will give enough room for one font set, 8 or 4 from MEMTOP gives enough room for 2 sets, 12 or 6 for 3, 16 or 8 for 4, and so on. Using PEEK 742 to locate your data automatically yields correct positioning.

To go further, I have to bring in the concept of indirection, which you may not need or understand. So, I'll keep to a bare minimum. Very simply, to use a string you call it by some identification and/or parameters. From the example above, A\$ has already been dimensioned. When I refer to A\$, the computer sees a special pointer called a vector that points at the first byte of data in A\$. The string data may be anywhere in RAM, but the vector is always at a predictable location. Indirection then is making use of these vectors, if the vector points to address 0 and I give it the command A\$="A", then a value 65 is stored in location 0. If I say A\$="ABC", then locations 0, 1, and 2 get byte values of 65, 66, and 67, respectively (note that 65 is the ATASCII value for "A"). One command makes the vector point to high end user RAM, which is then followed by commands like LINE 30000 shown above. In other words, if I make A\$ point to the location I want the font to go, then as I fill A\$, my characters fall in place (approximately .18 seconds per font). By the use of a vector, we can find where the computer put its table of half vectors (1/2 being the table itself). I stress the importance of making A\$ the first variable encountered running the program, because that makes the programmers job half as hard. You want A\$ dimensioned first so it is the first entry in the variable value table. Then you don't have to make any accounting for how many variables A\$ is from the beginning. You don't want to worry about offsets here because you need worry of only one offset as you leisurely plop any size block of memory anywhere you want A\$ to be (within limits). I can now give you the routine which is almost line for line out of DE RE ATARI (page 10.18). They suggest using strings to manipulate player-missile graphics at assembly language speed.

In this next example, I use variables A, B, C, and D. I use AH or AL to denote the MSB and LSB which if combined equal the value of A (or BH, BL for values equal to B). Line numbers are shown as ***, but mean you can use any line number as long as the order is not destroyed. This is my fast font routine:

TYPE IN BASIC	EXPLANATION
000 DIM A\$(1024)	;ROOM FOR 1 SET GR. MODE 0
*** GRAPHICS (MAX)	;MAX=HIGHEST MODE USED IN PROGRAM
*** A=PEEK(742)-4	;MSB OF START ADDRESS
*** B=PEEK(134)+256*PEEK(135)	;ADDRESS OF VALUE TABLE
*** C=PEEK(140)+256*PEEK(141)	;CURRENT OFFSET OF A\$
*** D=A*256-C	;OFFSET TO NEW ADDRESS
*** DH=INT(D/256):DL=D-256*DH	;MSB, LSB OF OFFSET (D)
*** POKE B+2,DL:POKE B+3,DH	;REPLACE OLD VECTOR WITH NEW
*** POKE 15,A+4:POKE 742,A	;PROTECTION OF DATA
*** POKE 756,A	;CHANGE CHARACTER BASE VECTOR
*** GOSUB (ASSIGN)	;NOW EXECUTE THE ASSIGNMENT STATEMENTS SUCH AS LINE 30000 SHOWN ABOVE

To move blocks of data around in memory at assembly language speed you can simply recheck the current offset [C=...], calculate MSB of new address [A=INT(new addr/256)], refigure the new offset [D=... and DH=... and DL=...], then poke the new offset into place [POKE B+2... and POKE B+3...], and then finish with the assignment statement telling the computer what you want to put in A\$. PROVIDED YOU DO NOT CHANGE THE VALUE OF B, YOU WILL ALWAYS KNOW WHERE THE VECTOR FOR A\$ IS. (locations B+2, and B+3).

There are two ways to toggle up new fonts, the first being the method I like best. They are:

1. Give A\$ enough room to hold all fonts and adjust address 756 (CHBAS) to change fonts. Offset font1=D (original offset), offset font2=D+512 or 1024 (depending...), offset font3=D+1024 or 2048 (depending...), and so on.
2. Set up multiple strings of equal length [DIM A\$(1024),B\$(1024),C\$(1024)], set A\$ in place with the routine above, place one font in B\$ and the other in C\$. To change fonts you need only to assign one of the font strings to A\$ [A\$=B\$ or A\$=C\$].

I hope you find this concept as easy to grasp as I did. I think the part that may slow you down the most is getting the font data out of a disk file and into your program. You could let the computer do the work for you by writing a program that will create an untokenized file that you may ENTER upon completion. I wrote one and gave it to FRANK HAUG (SPACE DOM librarian) for his review. Busy as he is, I haven't seen it on the BBS or DOM or gotten any comments one way or the other. If you ask, I'm willing to give you a copy. The title is FONTSQEZ and included via REM statements is an overview of what I've said here. For further information, consult DE RE ATARI or MAPPING THE ATARI, or, contact me by leaving a note for me on the SPACE BBS.

Happy computing!

News From the Co-Chair, by Jim Schulz

Well, October is now upon us as MAST rolls on. This week has been quite hectic for yours truly with work and the Programmer's Meeting so this month's contribution will be limited to this article. And you are seeing this articles with much thanks from our newsletter editor Bob Floyd. This month's schedule for once just conflicted with the newsletter schedule and I was planning on skipping this month. But then word of my demise and leaving the group will

start to spread so you get a short Jim this month, instead of a lengthy one. Speaking of newsletter contributions, I would like to thank Dan Stubbs, Phil Seifert, and Larry Serflaten for their contributions this month.

Now on to this month's editorial.... During the past month, we had a rousing discussion of MAST and SPACE and their relationship to each other. The result of these meetings is found elsewhere. I, as well as the other board members, came up with these changes based on your opinions. The result is a stronger club in numbers while still addressing the needs of both the 8 bit and the 16 bit Atari owner. All members of MAST are encouraged to attend the SPACE meeting this month to express your opinions on the new bylaws changes. My personal feeling is that we should get these changes made and get back to the business of user groups with news, rumors, demos, and DOMs. The business of how MAST and SPACE are organized and communicate is important, but long discussions often cause members to become disinterested and unwilling to participate. My goal is to keep these channels of communication open, but to keep the discussions to a minimum to serve both the active member and the casual observer. In a lot of ways, I believe both SPACE and MAST air their views alot more open than a number of other groups across the country. Onward and upward....

Now to continue my plan of serving the MAST members, two things have been requested by a number of members as missing. The following are these items and my current solution. First, I have been asked why we don't start a beginner's group/new user's group/new ideas and answers group. Ok, this is my current plan. MAST can start such a group if we can get 10-15 members who are willing to show up. The meetings would be held on the Monday following the MAST meeting at the same location as the programmer's meeting. We have a nice room across the hall with a number of tables and chairs very suited for this type of discussions. The group would include a number of planned items including such topics as how to use a ramdisk, print spooler, etc., modems-how to use and what you need, hard drives-what do you need to know, disk of month explanations-selections from the DOMs demonstrated and used, and more. As well as topics, questions can and will be encouraged and demonstrated if need be on the computer. An ST would also need to be volunteered. Group topics could be cycled after a while to expose new users to topics previously discussed. Special meetings looking at wordprocessing, communications, data bases, and spreadsheets could also be included. Also examples of the topics discussed could be available after the meeting on disk for those in attendance. If this sounds interesting, we could start such a group in December or January. Now to continue, we need your feedback. If you are interested, let me know at this month's MAST meeting. If we get enough interest, we will go ahead. Otherwise, it will be tabled for now. I have been told that ST owners fall into two groups - experts and beginners. Now MAST can address both. Also we will need a volunteer to run the group. I hope such a volunteer could be found, otherwise, bite my tongue, I will truck on with another group under my belt. Since I currently explain and solve problems over the phone now daily at work to new owners, I should be able to handle it for ST owners. But I would much rather have a good communicating volunteer to run the group instead. More on this next month. Second, you want a DOC disk. Well, this month, I will start this coming true. First, Todd's DISKTOP should be modified by the meeting to support the whole library. In addition, I will start organizing the library using the MENU program from the DOM. This program includes sorts, searches and descriptions. No descriptions this month, but more in the months to come. See I do listen and appreciate you comments. Remember MAST is your ST user group.

Speaking of volunteers, two new volunteers can be confirmed this month. First, Steve Pauley, ace MAST sysop, will be taking over the newsletter starting in December when Bob resigns. Steve is a previous newsletter editor for two years

for SPACE many moons ago and he is back to help again. Also Dave Meile has volunteered for the post of MAST Corresponding Secretary. Dave's duties will include getting us signed up with Atari and listed on all of ST user group lists in the magazines as well as starting a newsletter exchange program with other ST user groups. Dave is also working on another very interesting project for MAST which will be discussed in next month's newsletter so stayed tuned. Thanks to both Steve and Dave for volunteering. Also, we will need two volunteers for a nominating committee to nominate officers for president and vice-president of MAST if the bylaws changes are approved. I believe that the two officers positions currently both have nominations so this job should be quite easy.

Disks this month.... With no DOM article this month, let's see.... How about SteelyBoink from Tom Hudson.... MicroSpell, a spell checker with dictionary from the author of MicroEmacs,.... MicroEmacs 3.9 with two source disks, one program disk, and one or two Emacs support disks.... This sounds good for starters... Check the MAST BBS the week of the meeting for more.... Also on the disk front, the DS disks came in and will be on sale at the meeting for \$1.10 each. Come one, come all. Remember as long as you buy MAST will sell. 100 disks are available.

Demos this month will include alot of goodies including MidiMaze. I played this the other night with our demo coordinator who plays a mean game which is hard to beat. This game has to played to be seen. We will try it with a couple of STs this month. If the club is interested, MAST will buy a copy and start playing after the meeting with the culmination with a beginners and experts tournament with prizes in the months to come. Bring your ST and check this one out. More in the Phil Demos Column...

A couple of quickies.... Thanks first go out to User Friendly for bringing the Mega ST to last month's meeting. Latest news on the Megas include \$2399 for 4 Meg mono, \$2599 for 4 Meg color, \$1699 for 2 Meg mono, \$1899 for 2 Meg color now all come with 2 double-sided drives installed. Also, remember and mention the SPACE/MAST Wizard's Work special for ST hardware, Epson printers and Atari software. Just don't talk to Phil before you buy. Just one more benefit of a SPACE/MAST membership. Finally, if you are USENET, there is another way to get ahold of me. I'm back on USENET at rosevax!camax01!schulz. I will respond to your messages and it is currently the easiest way to get to me. I am currently discussing MAST stuff with Dave Meile this way.

Well, I had better close it up so Bob can get this. Expect lots more next month and remember the MAST and MAST Programmers meeting this month. See you at the meeting.

MAST September Meeting Minutes, by Dan Stubbs

The MAST September meeting was held September 18 and was opened by co-chair Bob Floyd. Jim Schulz described the D.O.M.'s and the special discounts offered for past disks. For disks from more than 3 months ago, the price is \$4 per disk. A special is also being offered on the whole set of MAST disks. Read Jim's article for information on this special offering. In the news and rumors department Jim reported that new versions of the 1040 ST are coming equipped with sockets for the blitter chip. Word Perfect is reportedly being held up by the new update of OSS Pascal. Atari has purchased Federated Stores for \$63 million. Supra is rumored to be coming out with a 10 Megabyte drive for \$799 that will use special 5 1/4 " 'floppies' that will sell for \$25/disk. No information was available on transfer rate for this drive. Atari's modem for

the ST has been released. The Atari ST developer's kit has been split into 3 parts depending on what kind of documentation and support is offered along with it. Jim reported that Atari had agreed with Steven Jobs to do the initial marketing on his new computer called the "NEXT" computer. Mega ST's are available now to developers, User Friendly showed a Mega 4 at the meeting, complete with the elusive blitter chip.

An extended discussion was held on the subject of the future of the relationship between MAST and SPACE. The options presented for discussion were to:

1. Keep the same relationship as now (MAST a SIG of SPACE)
2. Change to equal representation of both groups on the board
3. Split the two groups into two separate groups.

Discussion on this topic pointed out that MAST was not being listed on some lists of ST clubs because it was at present a SIG. A vote was taken and MAST members present voted 17 votes for option 2, and 14 votes for option 3. A committee of interested MAST members has met and drafted some proposals for consideration as additions to the bylaws for the new joint organization. On the behalf of MAST members, I would like to thank SPACE for sponsoring and organizing MAST. I think special thanks are due to the officers of SPACE who got MAST going ... Bruce Haug, Jim Schulz, and Bob Floyd, and Frank Haug. I first heard about SPACE and MAST on a local radio program broadcast about computers which featured Bob Floyd and the then new-fangled 520 ST. Thanks, Bob, Bruce, Jim and Frank! I hope SPACE and MAST can continue to grow together.

In the area of problems with ST's, Ted Holman reported difficulties with his memory upgrade board; it seems his early ST has some chips incompatible with his upgrade kit from Aerco. Phil Seifert demonstrated several programs including A-chart, Base II, Jupiter Probe, and Century.

At the programmer's meeting on September 28, Chuck Purcell demonstrated 'ML' a multi-lingual editor that can handle text in Hebrew, Arabic, Russian, Greek, German, English, etc. He has uploaded a demo version of this program to the MAST BBS. Chuck also demonstrated math libraries from MW 'C' and some public domain math libraries from Europe, and a different interface for the OSS Pascal environment. Steve Pauley proposed that the programmer's club get involved in some kind of joint programming effort like an ST version of 'Core Wars' or a similar game but with a graphic interface and display. John Stanley and Dale Schumacher demonstrated the newest version of a shell program they have written. Todd Burkey talked about an idea he has for a new editor and demonstrated some of his beginning efforts. Next month's programmers' meeting will again be on the Monday following the MAST meeting.

MAST Demonstrations, by Phil Seifert

Ok, so now I am the demo coordinator. I guess what that means is that I have to tell you guys and gals in advance what I have planned for the demonstrations at the MAST meeting. Remember, these are tentatively scheduled demos and by no means, represent the only demos. Also, if you have a program or would like to see a program demonstrated at the MAST meeting, just tell me either at meetings, on the MAST BBS (560-9254) or call me at Wizard's Work (559-4690) during the day.

For the October MAST meeting, I have planned for show these programs:

Midi Maze - The famous program we have all been reading about the last 6 months is finally available for search and destroy missions. If you would like to bring your ST (CPU, drive, monitor, power strip, joystick, and 1 midi cable) I think we could arrange for someone to hunt you down.

Boulder Dash Construction Kit - A great game translated from the 8-bit computer. A definite winner, I think.

F-15 Strike Eagle - Another translation from the 8-bit line of Atari computers. Good adaptation.

Those are what I have planned. Of course, things may change and something else might be shown or not shown. I will, as a general rule, try to have a balance of different types of programs for the demos, but this month is all games since there was nothing really interesting and new for other types of applications. Remember to let me know if you would like to see something else demonstrated (AND NO BOO-ING!!).

Wizard's Work

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PC-DITTO and the Single Sided Drive, by Dan Stubbs

For those of you who don't know anything about how the software IBM emulator PC-DITTO functions, read Bob Floyd's article in the last newsletter. Briefly, PC-DITTO comes on a single sided disk and is a ST program that you run from the desktop like any other program. When you run it, however, it asks you to insert a DOS disk (you must buy your own DOS disk) and press return. DOS usually comes on 5 1/2 " disks, but now you can get it on double sided 3.5 " disks. There is considerable confusion (on GENIE at least) on what the situation is for booting from a single sided (ss) 3.5 " disk (there is no problem using ss disks for data or programs). So.....

Is there any hope for those of us who have only single sided drives and still would like to run PC-DITTO without attaching a 5 1/2 inch disk drive? The following is a small part of the discussion on PC-DITTO on Genie in the file called DITTOTOP.ARC. Mr. Teal, of AVANT-GARDE, who developed PC-DITTO says that you can boot DOS from a single sided 80 track 3.5 " drive if you have DOS 3.2 or higher. I have tried the single sided 40 track 3.5" drive approach successfully, but I have not yet tried the 80 track approach. I have installed a 5 1/2 " drive and have booted from this drive also -- this is the preferred way for me since I can take word processing home from work and still be compatible with the 5 1/2 " drives at work. I purchased a new 5 1/2 " drive for about \$100 without power supply. I found that I had to change the 'pull-up' resistor (from 150 ohms to 1000 ohms) for 'drive select' in this drive for my 520 ST to successfully 'select' the drive. This is documented in the Nov. 1985 ANTIC article (where the author just cut the 150 ohm resistor open) and has to do with the ability of the ST's output circuits to deal with the current associated with the 150 ohms that are standard in the IBM world. This is not a defect of the ST but rather an intentional design difference. Anyway, if you want to follow my approach to this problem you will have to find a power supply, a 5 1/2" drive and make yourself a cable that matches the ST at one end and the 5 1/2" drive at the other. If you don't have the desire to do a little hardware hacking and don't have a spare power supply on hand, and you still want to be compatible with the 5 1/2 " world you might consider buying a complete 5 1/2 " drive system from one of the local dealers. If you have some IBM programs you want to run and don't mind leaving them on your 3.5 " disks, read the following comments from Mr. Teal:

```
<<from Genie>>:
"Category 13, Topic 28
Message 118      Sun Jul 12, 1987
W.TEAL           at 22:52 EDT
```

Specific questions

1. Which single-sided 3.5" disk format to boot DOS from?

Our utility, pc-dfmt, will not let you create a single-sided 80-track bootable DOS diskette, because the DOS you may be using could be lower than version 3.2. Thus, for DOS versions below 3.2, you may only create a 40-track single-sided bootable DOS diskette. You may, however, create 80-track data diskettes (containing no bootable DOS) for use under DOS versions below 3.2. See our user manual and README.1ST file for details.

For DOS version 3.2, there is a simpler way to format high-capacity

diskettes. You may also create bootable (that's right Bootable) 80-track single-sided DOS diskettes.

This works for IBM and COMPAQ DOS versions. (For all other DOS makers, we haven't tested this).

Create a Config.sys file containing the line:

```
DRIVPARM=/D:x/T:80/S:9/H:1
(replace x with a 0 or 1 depending on which physical drive is 3.5")
(0 is a: and 1 is b:)
```

Now, using the DOS FORMAT command, you can create the SS 80-track disk, optionally bootable with DOS."

Children Will Play, by Phil Seifert

Hi there, I am back again. Instead of talking about midi applications and software this time around, I will go back to what I started this column about many years ago. That subject is games. A couple of new ones have come out that I have been waiting for a long time for to become available for the Atari ST computer. They are Boulder Dash Construction Kit and F-15 Strike Eagle. Before, there really did not seem like there was a whole lot of good arcade style games. But now, there are many new ones coming out that are going to blow a lot of people's socks off. Besides the good clean fun of Boulder Dash, there will be Gauntlet, Midi Maze, and PaperBoy.

But, first, lets talk a little bit about Boulder Dash Construction Kit. This program is marketed by Epyx. They appear to have licensed the rights to the game from First Star Software. Those of us who played Boulder Dash on the older 8-bit line of Atari computers know what a good game this was and still is. You play the role of a miner named Rockford and your goal is to collect diamonds and get rich. Rockford is placed in a series of caves that contain a set number of diamonds. All you have to do is go get them. Sounds easy, doesn't it? Not really, there are various obstacles to get in your way like falling rocks (mines are not too safe), assorted creatures (who knows what lurks in the depths?), and other surprises. You must collect a certain number of diamonds in order to advance to the next cave. Any extra diamonds are bonus points for you. And just so you don't dawdle around, the mine boss only gives you so much time per cave to accomplish your task. This is a GOOD game. And, the graphics are as smooth as the earlier 8-bit version, though in some ways I think the action pieces were nicer on the earlier one. The game play is definitely as good if not better than Boulder Dash I. And, there are some new twists to the game which I will not reveal. I was sworn to a miner's secret oath.

Notice I have not talked about the construction set part of the game yet? This makes the game much more interesting to me. Anyone can now create different caves, sequences, and intermissions. Imagine, a group of individuals may create a special tournament game or user's groups could have new game screens. Of course you need to have the original Boulder Dash Construction Kit to play them, but that should not be too difficult. Best news of all about Boulder Dash Construction Kit is that is available NOW for both the 8-bit and ST Atari computers. And the price is a mere \$24.50 list. I think this program is a must have for anyone with these computers, if you like playing games.

The long awaited F-15 Strike Eagle is now out for the Atari ST and it is very faithful to the original on the 8-bit computer. The graphics are a bit sharper and the game play is actually quite good. Microprose did a good job in translating this one to the ST. I am not sure what the retail price of this one is as the version I saw was a demonstration sample sent to Wizard's Work. Take a look at this one if you are into the strategic action flying type games.

According to a distributor that I have talked to this week, Midi Maze from Hybrid Arts should be released very very shortly. At the time this is being written, 9/24/87, it is supposed to be available the following week. I know, you all have heard this before and probably don't believe it. But this time, I think it is true. The latest delay supposedly was so that Xanth could add in RS-232 support and let one machine act as a master screen so that tournament spectators could watch more easily. I like the idea of the second addition myself. Anyone up for a Midi Maze tournament when this one is released? ** LATE BULLETIN ** Midi Maze has been released. ** I will bring it to the next meeting for demonstration. **

Other game programs I am looking forward to include Bard's Tale (which is released now), Ultima IV, Beyond Zork, and Wizardry. These are all high quality adventure role playing games. I will buy each and everyone of these. I know that sometimes I don't have the time to play them all the way through, but they are fun to play.

Finally, I can't resist, I have to let you all know that Dr. T's Keyboard Controlled Sequencer Version 1.5 is now out. It is quite a bit easier to use and has even more features. If you are seriously into midi and want a good professional midi sequencer check this one out! I still wished he would support smpte sometime though.

See you all at the meeting!

TAKE THAT! SLIMEBALL!
A Midi Maze Review, by Phil Seifert

The title of this column just about sums up the feelings and emotions surfacing when you get a bunch of your friends together (who own ST's, of course) and hook them all up to play a game called Midi Maze. This Hybrid Arts release of a Xanth Park program is just sheer dynamite. After watching the premiere of Star Trek - The Next Generation, we decided to play a little friendly game. We did not know what we were really in for.

This is a game where each player is given his own private viewing screen on his computer. Then you run around a maze trying to locate the other players. They are represented by happy face balls. The object of the game is to kill a happy face. Fun, Fun, Fun. The graphics are good, smooth, and fast. I did not notice a slowdown at all when more computers were communicating with each other. I guess there really is not too much more that I could really say to give a review, you would just have to experience it. What I would like to do is pass along some of the comments made by the people who played tonight.

"See that shot? That was me!" said by one player who was pointing out the difference between him and another enemy. Of course, he killed the person to whom he was explaining.

"The trick to winning is to kill Phil first." stated by all the other players as they realized that someone (who almost remained nameless) was getting the hang of it.

"Gotcha! Slimeball!". No need to be on a first name basis in this game.

As you can see, you should only play this game with friends who are truly friends. Or with someone you absolutely hate with a passion. No in between feelings in this game. If you have access to friends with ST, this is a definite must buy program. Hybrid Arts is the publisher and the retail price is just \$39.95. Go get this one!

p.s. I will bring my 1040 to the next MAST meeting to demonstrate Midi Maze. If anyone else would like to bring their ST, they will need to bring the computer, monitor (either color or mono. More fun with color), joystick, one midi cable, and a power strip of some kind. The more players, the merrier. Eventually, we will arrange for a tournament to have some fun, but not this time around.

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- Citizen 120 D

\$2.00/ribbon

- Epson MX-100 and compatibles

Other ribbons can be attempted, too. But if you prefer, you can buy an adapter (\$8.50 + \$3.50 shipping and handling) for the club and receive half that amount in credit towards re-inkings. See Larry Vanden Plas at the SPACE meeting, or Bob Floyd or Bruce Haug at the MAST meeting. Also, ribbons can be dropped off with Larry at his place of work at the Roseville Professional Center at Hamline Avenue and Highway 36 (fifth floor - make a right turn out of the elevator & then another right to the end of the hall, then drop the ribbon through Larry's mail slot and run away as fast as you can - ha ha, ed.). Or, you can drop ribbons off with Larry at his home - 850 Emerald Court, New Brighton, MN, 55112, phone 636-2415. Please pay in advance and be sure to have your ribbon(s) in a plastic bag.

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